

WHAT IS CLAIMED IS:

1. A pipe coupling for connecting a pipe (10; 110) to a flange (12; 112) associated with another pipe (16; 210) in a sealed manner, wherein the pipe (10; 110; 210) is formed with a circumferential groove (10a; 110a; 210a), the coupling comprising a gasket (20; 220), a mounting ring (18; 118; 218), and a mounting flange (22; 122; 222), characterized in that the ring (18; 118; 218) is elastically expandable, and formed with projection means (18a; 110a; 210a) adapted to fit into the groove (10a; 110a; 210a) and hold the ring affixed to the pipe (10; 110; 210) while the mounting flange (22; 122; 222) is tightened against both the ring (18; 118; 218) and a counter-flange (12; 222; 122).
2. The pipe coupling as claimed in Claim 1 wherein the ring (18; 118; 218) is split.
3. The pipe coupling as claimed in Claim 2 wherein the ring (18; 118; 218) is split by a cut extending in an axial plane thereof.
4. The pipe coupling as claimed in Claim 2 wherein the ring (418) is split by a cut extending in a non-axial plane thereof.
5. The pipe coupling as claimed in Claim 1 wherein the ring (18; 118; 218) is made of plastic material.
6. The pipe coupling as claimed in Claim 1 wherein the projection means comprise a circular rib (18a; 118; 218).

7. The pipe coupling as claimed in Claim 6 wherein the rib (18a) is of a generally saw-tooth shape having a right-angled side (18') and a beveled side (18a").
8. The pipe coupling as claimed in Claim 1 wherein the ring (18) is formed with a circular recess (18b) configured to accommodate an elastomeric gasket (20).
9. The pipe coupling as claimed in Claim 8 wherein the gasket (20) is formed with an inner slot (20a).
10. The pipe coupling as claimed in Claim 9 wherein the gasket (320) is formed with a thin flap (320b).
11. The pipe coupling as claimed in Claim 1 wherein the ring (18) has an outer cone-shaped surface (18c).
12. The pipe coupling as claimed in Claim 11 wherein the cone angle is between 15°-30° relative to the axis of the ring (18).
13. The pipe coupling as claimed in Claim 12 wherein an upright shoulder (18d) extends around the end of the cone surface (18c).
14. The pipe coupling as claimed in Claim 1 wherein the mounting flange (22) is formed with an inner cone-shaped surface (22a) matching the cone-shaped surface (18c) of the ring (18).
15. The pipe coupling as claimed in Claim 14 wherein the mounting flange (22) is formed with a series of bores (22b) through which tightening bolts (14) are adapted to pass.
16. The pipe coupling as claimed in Claim 11 wherein the bores (22b) are partly surrounded by arcuate projections (22c).

17. The pipe coupling as claimed in Claim 1 wherein the ring (518; 618) is composed of more than one segment, the segments being held together by an external elastic band (524; 624).
18. The pipe coupling as claimed in Claim 17 wherein metal inserts (826) are interposed between adjacent segments.
19. The pipe coupling as claimed in Claim 18 wherein the segments and inserts are held together by an elastic band threaded therethrough.
20. The pipe coupling as claimed in Claim 1 wherein the ring (818) is made of sheet metal.